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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,204	02/27/2007	Volkmar Stenzel	EISEN-004XX	5682

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EXAMINER	
GRUN, ROBERT J	

ART UNIT	PAPER NUMBER
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,204	STENZEL ET AL.	
	Examiner	Art Unit	
	ROBERT J. GRUN	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-16 and 18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-16 and 18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/3/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure (IDS) statement filed June 30, 2009 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. The IDS has been placed in the application file, but some of the references referred to therein have not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 6, 7, 9, 11, 12, and 14 are rejected under 35 U.S.C. 102(b) as being unpatentable over Okubo et al. (US 5,480,596).

- Regarding Claims 1, 6, and 7: Okubo et al. discloses an apparatus and method for producing a micro structured optical recording medium using the apparatus. The device comprises a roll stamper with an elastomer layer of predetermined hardness.

Figure 1 shows a roll stamper (3) matrix (6) with a negative of the microstructure to be generated, a pressure roller (4) drivable over a surface for pressing the matrix onto the surface. The pressure roller and matrix are arranged so that when the roller passes over the surface the matrix executes a rolling movement between the roller and layer, so that the negative of the matrix faces towards the surface. An ultraviolet lamp (13) for accelerating the curing of a curable material is arranged so that when the pressure roller passes over the surface the curing acceleration device accompanies the movement of the roller and acts on a part of the surface.

- Regarding Claims 9 and 14: Okubo et al. teach the invention as described above in the rejection of Claim 1. Okubo et al. also show in Figure 1 a device (11) for applying the curable material to the matrix.
- Regarding Claim 11: Okubo et al. teach the invention as described above in the rejection of Claim 1. Okubo et al. discloses a process for producing a micro structured surface including a resin layer a micro structured pattern that is to be transferred to the layer and a roll stamper (3) (Column 3, lines 17-24).
- Regarding Claim 12: Okubo et al. teach the invention as described above in the rejection of Claim 1. The method disclosed by Okubo comprises a means for curing (UV light (13)) the resin layer (Column 3, lines 43-46).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-9, 11-16 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flohr-Schmitt (DE 19613383)(English Translation Attached).

- Regarding Claims 1, 6, 7, and 8: Flohr-Schmitt teaches a casting stamp and method for applying microstructures on an article. Figure 1 shows a matrix with a negative of the micro structured surface (16) and a pressure roller (12). (page 11, Example 4). The pressure roller and matrix are arranged so that the when the roller passes (is driven) over the surface the matrix executes a rolling movement between the roller and surface. The negative of the matrix is facing towards the surface (10). Figure 4 shows a transparent die (36) with a transmission window in the UV-IR range (pages 12 and 13 Example 6) above an UV hardening material that is to be cured through irradiation of the matrix. The direction of the UV waves indicates a curing device

mounted so that the curing of the curable material on the surface to be micro structured is effected by through irradiation of the matrix (36).Therefore it would be obvious to one having ordinary skill in the art to use a UV transparent matrix (36) in Figure 4 in the design of Figure 1 or 2, in order to transmit UV radiation from a curing device to travel through the matrix and into the surface of the material (assumed to be UV curing) allowing for continuous curing of the surface material.

- Regarding instant claims 2 and 4: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further teaches the casting stamp may have a Shore A hardness between 12 and 75 in the cured state with the hardness being matched with the application (page 7, 2nd paragraph, last 2 sentences).
- Regarding Claim 3: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further shows in Figure 2 a roller (18) arranged so that when the tool is driven over the surface the microstructured surfaceis removed from the matrix.
- Regarding Claim 9: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further shows in Figure 2 a device for applying the curable material to the matrix.
- Regarding Claims 11, 12, 13, and 21: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further teaches a method in Example 4 which uses the tools in Figures 1 and 2 to generate a microstructure

on a surface. Figure 4 shows UV curing by the tool the curable material on the surface (34) that can be micro structured.

- Regarding Claim 14: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further shows in Figure 2 a curable material being applied to the matrix by the tool in order to provide a surface to be micro structured.
- Regarding Claims 5, and 15: Flohr-Schmitt teaches the invention as described above in the rejection of Claim 1. Flohr-Schmitt further shows in Figure 3 an object (26) with a multiply curved surface, where a flexible casting stamp (25) generates a microstructure. Due to the flexible nature of the casting stamp (25) it can be positioned in the curved portion of the mold (22) (page 12 Example 5).
- Regarding Claims 16 and 18-21: Flohr-Schmitt teaches the invention as described above in the rejection of Claims 1-15.
- Regarding Claims 22 and 23: Flohr-Schmitt teaches the invention as described above in the rejection of Claims 1-15. Flohr-Schmitt does not delineate the specific dimensions of the rollers however a person having ordinary skill in the art at the time of invention would have found the dimensions to be a matter of obvious design choice dependent on the type of microstructure to be applied as well as the surface on which the microstructure is to be applied.

Response to Arguments

7. Applicant's arguments filed June 3, 2009 have been fully considered but they are not persuasive for the following reasons:

- Applicant's argues that Okubo et al. does not disclose the curing acceleration device accompanying the movement of the pressure roller because it is stationary. This argument is not persuasive because accompanying does not require movement. Accompany is defined as " attach to: be present or associated with an event or entity". Examiner submits that the UV light (13) of Okubo et al. is present and associated with the roller at all times even though the roller is moving over the surface to be microstructured. A similar argument would hold true for the obvious combination disclosed in Flohr-Shmitt. Additionally the claims as written do not require the device to be non-stationary. They require the roller to execute a rolling movement and to be driven (in the case of the applied prior art driven in a circular motion). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., non-stationary) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT J. GRUN whose telephone number is (571)270-5521. The examiner can normally be reached on Monday-Friday 10:30-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katarzyna Wyrozebski can be reached on (571) 272-1127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KAT WYROZEBSKI/
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/ROBERT J GRUN/
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